

## THE FARM BULLETIN

### THE MACDONALD COLLEGE OPENING.

Macdonald College, at Ste. Anne de Bellevue, P.Q. (incorporated with McGill University), was founded, erected, equipped and endowed by Sir William C. Macdonald for the following among other purposes:

1.—For the advancement of education; for the carrying on of research work and investigation and the dissemination of knowledge; all with particular regard to the interests and needs of the population in rural districts.

2.—To provide suitable and effective training for teachers, and especially for those whose work will directly affect the education in schools in rural districts.

The College occupies a beautiful site, overlooking the Ottawa River at Ste. Anne de Bellevue, twenty miles west of Montreal. The main lines of the Grand Trunk and the Canadian Pacific railways pass through the property, and the stations of both railways are within its boundaries.

The College property comprises 561 acres, and has been arranged into three main areas, viz.: (1) The Campus, with plots for illustration and research in grains, grasses and flowers, containing 74 acres; (2) The Small Cultures Farm of 100 acres, for horticulture and poultry-keeping; and (3) The Live-stock and Grain Farm, extending to 387 acres.

The staff as arranged this far is as follows:

James W. Robertson, LL.D., C.M.G., late Commissioner of Agriculture and Dairying for the Dominion, Principal.

Geo. H. Locke, M.A., Head of School for Teachers.

F. C. Harrison, B.S.A., M.Sc., Professor of Bacteriology.

William Lochhead, B.A., M.S., Professor of Biology.

Carleton J. Lynde, Ph.D., Professor of Physics.

Leonard S. Klink, M.S.A., Professor of Cereal Husbandry.

H. S. Arkell, B.S.A., Professor of Animal Husbandry.

John Brittain, D.Sc., Professor of Nature Study.

J. F. Snell, Ph.D., Assistant Professor of Chemistry.

W. Saxby Blair, Assistant Professor of Horticulture.

V. R. Gardner, Assistant in Horticulture.

J. M. Swaine, M.A., Lecturer in Biology.

John Fitzer, Farm Superintendent and Instructor in Farm Machinery.

Fred C. Elford, Manager and Instructor in Poultry Department.

School for Teachers—

Abner W. Kneeland, M.A., B.C.L., Professor of English Language and Literature.

Mme. Sophie Cornu, Professor of French.

Miss Lillian B. Robins, B.A., Instructor in Mathematics and in Classics.

Miss Mary I. Peebles, Head Mistress of the Practice School.

Miss Moe, Assistant in the Practice School.

School of Household Science—

Miss A. DeLury, Assistant.

Miss C. T. McCaig, Assistant.

General—

House-mother in women's residence building, Mrs. Jennie Muldrew.

Housekeeper and Dietician, Miss J. Kennedy.

Matron of the men's residence, Mrs. J. F. O'Hara.

The preliminary announcement calls for the opening of the first term for Protestant Public-school teachers on September 17th; the School of Household Science, Sept. 24th, and the School of Agriculture October 1st.

In the School of Agriculture, courses are offered as follows: A. Short courses of from two weeks to three months each. B. A two-year course, leading to a diploma. C. A four-year course, leading to a Bachelor's Degree.

A. The Short Courses are made as practical as possible, and are provided in the subjects of: (1) Live Stock; (2) Seeds, Crops and Weeds; (3) Poultry; (4) Horticulture.

B. The two-year course embraces studies in: (1) Field and Cereal Husbandry; (2) Animal Husbandry; (3) Poultry Husbandry; (4) Home Dairying; (5) Horticulture.

In household science there will be short courses—a one-year home-maker's course and a two-year course leading to diploma. The short courses last three months each, are made as practical as possible, and include the study of: (1) Foods; (2) Plain Cooking; (3) Sewing; (4) Laundry; (5) Home Nursing, Sanitation and Hygiene; (6) Home Art; (7) Care of the House.

The one-year home-maker course embraces practical and theoretical work in: (1) Foods; (2) Cookery; (3) Household Economics; (4) Materials for Clothing; (5) Dressmaking and Millinery; (6) Laundry; (7) Fuels, Ventilation and House Sanitation; (8) Home Nursing and Hygiene; (9) Home Art.

Simultaneous studies are carried on in the Physics, Chemistry, Biology and Bacteriology laboratories to show the direct bearing of the sciences on the practical side of housekeeping.

The two-year course is an extension of the one-year course, comprising a more intensive study of the subjects therein embraced, and also more advanced laboratory work in the Chemistry, Physics, Biology and Bacteriology branches. English, Mathematics and History are also obligatory subjects in this course, and the student is allowed to choose two of the following: Home Dairying, Poultry, Horticulture, Seeds and Plant Improvement, and Wood Carving.

An American journal records the death at Palo Alto farm, of Mendocino, the last of Electioneer, at the age of eighteen years.

### CAPITAL EMPLOYED IN CANADIAN MANUFACTURING.

A bulletin of the Census and Statistics Bureau, issued last week, shows that the capital employed in manufacturing establishments in Canada increased from \$446,916,487 in 1900 to \$843,931,178 in 1905. This increase of three hundred and ninety-seven millions, or about 90 per cent., compares with an increase of two hundred and thirty-four millions, or about 50 per cent. in production. The disparity in these ratios of increase is no doubt owing to the inability of recently-established works to produce to their full capacity. In cars and car works, for example, the ratio of production to capital in 1900 was 151, and in 1905 it was 101. In Portland cement works it was 86 and 15; in smelting works it was 67.5 and 32.5, and in electric light works it was 17 and 9, for each year, respectively. The five years have been a growing period in industrial investment, and the full results are not yet realized.

The figures for some of the more important industries are as follows:

	1900.	1905.
Agricultural imp. ....	\$18,207,342	\$28,409,806.
Boilers and engines.....	5,552,862	4,648,058.
Boots and shoes.....	11,005,869	11,819,165.
Bread, biscuits & con....	6,996,204	10,387,797.
Brick, tile & pottery ...	4,210,244	7,110,685.
Bridges, iron and steel...	1,755,379	3,341,754.
Butter and cheese .....	6,161,035	9,668,639.
Carriages and wagons ...	6,615,525	9,654,926.
Cars & car works .....	2,475,602	14,248,654.
Cement, Portland .....	891,959	8,625,240.
Clothing, men's, cust....	5,420,144	5,287,567.
Clothing, men's, fac....	3,843,799	6,562,452.
Clothing, women's, cus.	2,492,118	1,879,294.
Clothing, women's, fac.	1,051,441	4,195,814.
Cordage, rope & twine...	2,335,246	2,324,173.
Cottons .....	18,298,699	21,938,823.
Drugs .....	1,606,008	2,746,968.
Electrical apparatus & supplies .....	5,267,397	14,399,666.
Electric light & power...	11,891,025	80,893,445.
Fish, preserved .....	7,992,893	7,858,248.
Flouring & grist mill products .....	14,686,558	31,414,540.
Foundry & machine shop products .....	16,274,645	30,351,498.
Fruit & vegetable canning .....	2,004,915	3,480,215.
Harness & saddlery ....	2,512,301	4,085,223.
Iron and steel products ..	9,829,560	9,071,938.
Leather, tanned, etc....	7,800,584	11,193,851.
Lighting and heating....	7,692,101	10,283,114.
Liquors, distilled .....	7,874,724	10,209,004.
Liquors, malt .....	10,925,679	12,834,573.
Log products .....	55,605,666	99,634,553.
Lumber products .....	9,143,276	20,026,993.
Musical instruments ...	3,990,728	5,172,176.
Paper .....	7,507,819	21,260,157.
Printing & bookbinding...	2,830,814	5,536,008.
Printing & publishing...	13,726,039	16,009,049.
Sewing machines .....	110,140	885,710.
Ships and ship rep'g....	3,156,149	3,139,403.
Slaughtering and meat packing .....	5,395,162	6,374,110.
Smelting .....	10,483,112	87,482,829.
Sugar, refined .....	10,104,585	13,412,517.
Wire .....	1,599,118	3,981,192.
Wood pulp .....	11,558,560	11,161,768.
Woollen goods .....	10,486,198	6,938,683.

### ONTARIO'S CEMENT TRADE.

It is estimated that there is some \$7,000,000 invested in the Canadian cement industry, \$5,000,000 of this being in Ontario mills, employing 1,000 men, and having an output of some 3,000,000 barrels per year, and consuming in the process over \$700,000 worth of coal annually. The Globe gives the following list of the chief works, with daily output in Ontario:

Owen Sound, Shallow Lake .....	1,200
National, Durham .....	1,200
Grey & Bruce, Owen Sound .....	500
Sun, Owen Sound .....	500
Imperial, Owen Sound .....	600
Hanover, Hanover .....	500
Atwood, Atwood .....	100
Ottawa, Ottawa .....	1,800
Lakefield, Lakefield .....	1,000
Canadian, Deseronto .....	1,500
Blue Lake, Brantford .....	700
Belleville, Belleville .....	900
Daily output in Ontario .....	10,500

Several other mills are approaching completion, the demand being ahead of the supply, although establishments are running night and day. In addition to the many other uses, cement is now utilized in the construction of reinforced telegraph and telephone posts.

Dr. George Hilton, chief assistant to Dr. J. G. Rutherford, Veterinary Director-General, has gone to Regina to take over from the commissioner of the Royal Northwest Mounted Police the work of the health of animals branch in Saskatchewan and Alberta, hitherto in charge of the latter officer, a change rendered necessary by the rapid increase of live-stock interests in Alberta and Saskatchewan.

### IMPROVEMENTS AT THE CENTRAL EXPERIMENTAL FARM.

Marked improvements are being made at the Central Experimental Farm, Ottawa, this summer, particularly in regard to buildings. The need of better accommodation for the horticultural division has long been felt, but it was not until this year that money was available for the erection of a suitable building. This building, which is 50x50 feet, is now being erected, the foundation being already laid. It will be of wood, and three stories high. In order to have the cellar well insulated, especial attention was paid to the foundation walls, which are made of concrete, with an air space. There will be two air spaces in the part above ground; this part being faced with concrete blocks, which are hollow in the center, thus providing an air space. Adequate provision has been made for ventilating the cellar, which is divided into two main parts, one for fruit and the other for vegetables and trees. In one part of the cellar will be an ice-cold storage room. The fruit cellar will be used not only for storing the fruit, but for testing the keeping quality of the many seedling varieties of apples now fruiting at the Farm, and for other experiments. Boxes of uniform size will be used, and the conditions made as nearly similar as possible. The ground floor will be used for work rooms, and an office for the foreman. There will also be an exhibition room, which will be open to the public, and it is planned to have fresh fruit in this room most of the year. The walls of this part of the building will be specially constructed, so that the room may be as cool as possible in the summer.

The upper story will be divided into four main rooms, which will be used for storing baskets, boxes, etc., and for drying seeds.

The cow stables, which are somewhat out of date, having been built nearly twenty years ago, are being thoroughly overhauled. The construction of the walls is being altered, and in future the stables will be much lighter than they now are, larger windows taking the place of those which have been in the stables in the past. The floors, which were of cedar blocks, are being torn up and will be replaced by concrete. The interior fittings will also be replaced by those the most approved and modern.

A large addition will be made to the main office building later in the summer, which will increase the accommodation very much. This addition is greatly needed, as the clerical work in connection with the Central Experimental Farm is much greater now than it was a few years ago, and is constantly increasing.

A concrete sidewalk will be laid this year from the main entrance gate to near the office, to replace the wooden one which has served the purpose for a number of years.

It is expected that the electric railway will be extended from the city to the main office in the autumn. This will bring the Farm into much closer touch with the farmers who go to Ottawa on the many excursions which are held every year. Owing to the long distance from the cars, about a mile or more, which they have to walk to get to the Farm buildings, the number of farmers who visit the Farm is not as great as it otherwise would be, although many do go at present when special excursions are held to the Farm.

Taking these and other things into consideration, this will be a year of marked progress in the history of the Central Experimental Farm.

### WHEAT - HARVEST CALENDAR.

January.—Australia, New Zealand, Chile, Argentine Republic.

February and March.—Upper Egypt, India.

April.—Lower Egypt, India, Syria, Cyprus, Persia, Asia Minor, Mexico, Cuba.

May.—Texas, Algeria, Central Asia, China, Japan, Morocco.

June.—California, Oregon, Mississippi, Alabama, Georgia, North Carolina, South Carolina, Tennessee, Virginia, Kentucky, Kansas, Arkansas, Utah, Colorado, Missouri, Turkey, Greece, Italy, Spain, Portugal, South of France.

July.—New England, New York, Pennsylvania, Ohio, Indiana, Michigan, Illinois, Iowa, Wisconsin, Southern Minnesota, Nebraska, Upper Canada, Roumania, Bulgaria, Austria, Hungary, South of Russia, Germany, Switzerland, South of England.

August.—Central and Northern Minnesota, Dakotas, Manitoba, Lower Canada, Columbia, Belgium, Holland, Great Britain, Denmark, Poland, Central Russia.

September and October.—Scotland, Sweden, Norway, North of Russia.

November.—Peru, South Africa.

December.—Burmah, New South Wales.

### FAIR DATES FOR 1907.

July 13-20—Winnipeg Industrial.  
July 22-26—Brandon, Man.  
July 30 to August 2—Regina's Big Fair.  
Aug. 23-30—Iowa State, Des Moines.  
Aug. 26 to Sept. 9—Canadian National, Toronto.  
Aug. 29 to Sept. 6—Detroit, Mich.  
Sept. 2-14—Dominion Exhibition, Sherbrooke, Que.  
Sept. 13-21—Canada Central, Ottawa.  
Sept. 6-14—Western Fair, London.  
Sept. 9-13—Indianapolis, Ind.  
Sept. 9-14—New York State Fair, Syracuse.  
Sept. 17-19—Guelph.  
Sept. 18-20—Woodstock.  
Sept. 25 to Oct. 3—Halifax.  
Sept. 27 to Oct. 5—Springfield, Ill.